



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,576	11/17/2006	Thomas Buchberger	R.304929	1291
2119	7590	06/18/2008	EXAMINER	
RONALD E. GREIGG			CHAUDRY, ATIF H	
GREIGG & GREIGG P.L.L.C.			ART UNIT	
1423 POWHATAN STREET, UNIT ONE			PAPER NUMBER	
ALEXANDRIA, VA 22314			3753	
MAIL DATE		DELIVERY MODE		
06/18/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,576

Applicant(s)

BUCHBERGER ET AL.

Examiner

ATIF H. CHAUDRY

Art Unit

3753

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/19/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 9/19/05, 1/24/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 36 recites the limitation "outer jacket face" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22, 23, 29, 33, 34, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Jay et al (US Patent 2672881).
3. Regarding claim 22, Jay et al (fig. 2, 3) discloses a pressure limiting valve comprising a valve holder 14, 15, a valve insert 10 connected to valve holder, a piston 11, a compression spring 28 acting upon the piston 11 through an adjusting shim 25.
4. Regarding claim 23, Jay et al discloses the insert 10 having a cup shaped recess to hold the adjusting shim 25.
5. Regarding claim 29, Jay et al discloses the piston 35 comprising flat places 36.
6. Regarding claim 33 and 34, Jay et al discloses the adjusting shim 25 having a fluid recess 29 disposed eccentrically.

Art Unit: 3753

7. Regarding claim 38, Jay et al discloses an outlet 22 provided in the valve insert
- 10.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
10. Claims 30, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881).
11. Jay et al discloses two flat places uniformly distributed over the circumference of the piston but fail to disclose three flat places. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided three flat surfaces on the piston disclosed by Jay et al, since it has been held that discovering an

optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

12. Regarding claim 31, Jay et al (fig. 5) discloses flat places extending parallel to the axis of the piston 35.

13. Regarding claim 32, Jay et al discloses (fig. 3) flat places 36 oriented at an angle to the axis of the piston.

14. Claims 24, 25, 27, 35, 36, 39, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881) in view of Yie (US Patent 5241986).

15. Regarding claims 24, 25 and 27, Jay et al fails to disclose a valve holder comprising cup shaped holder having two subregions. Yie (fig. 1, 2) teaches a pressure relief valve 10 comprising a cup shaped valve holder 11 and a valve insert 12 screwed to the valve holder, wherein the valve holder 11 comprises a smaller diameter subregion to receive a spring 22 and a larger diameter subregion to receive the valve insert 12. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the valve disclosed by Jay et al with a valve holder and insert as taught by Yie as an alternative assembly configuration.

16. Regarding claims 35 and 36, Jay et al discloses the outflow conduit in the valve insert but fails to disclose an outflow conduit in the valve holder. Yie (fig. 1, 2) teaches a pressure relief valve 10 comprising a cup shaped valve holder 11 having an outflow conduit 24 as a bore connecting the interior of the valve body to outer face of the valve holder. It would have been obvious to a person having ordinary skill in the art at the time

Art Unit: 3753

of the invention to have provided the valve disclosed by Jay et al with a valve holder having outflow conduit as taught by Yie as an alternative fluid outlet path.

17. Regarding claims 39, 41, and 42, Jay et al fails to disclose a piston rod. Yie teaches a pressure relief valve 10 comprising a piston 15 having a piston rod 17 protruding into the cup shaped recess of valve holder 11 and surrounded by a spring 22 such that the adjusting shim 18 is slipped onto the piston rod 17 and rests on a steplike seat. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the valve disclosed by Jay et al with a piston rod as taught by Yie in order to help align the piston and the spring.

18. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881) in view of LINDEBOOM (US Patent 3346009).

19. Jay et al fails to disclose a conical spring. LINDEBOOM (fig. 1) teaches a pressure actuated valve comprising a piston operated by a conical spring. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the valve disclosed by Jay et al with a conical spring as taught by LINDEBOOM as an alternative biasing mechanism.

20. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881) in view of Lauer (US Patent 6523913).

21. Regarding claim 26, Jay et al fails to disclose valve parts joined together by caulking. Lauer (fig. 1, col 2, line 48), teaches a pressure control valve comprising a valve holder 14 and a valve insert joined together by caulking. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have

provided the valve disclosed by Jay et al with caulking as a joining method as taught by Lauer as an alternative method of valve assembly.

22. Claim 24 is alternatively rejected and claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881) in view of Waffler (US Patent 6953053).

23. Jay et al fails to disclose a valve holder comprising cup shaped holder having two subregions. Waffler (fig. 1) teaches a pressure relief valve comprising a cup shaped valve holder 36 and a valve insert 12 held in the valve holder, wherein the valve holder 36 comprises a smaller diameter subregion 54 and a larger diameter subregion 50 to receive the valve insert 12 such that valve is seated in the step between the two recesses. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the valve disclosed by Jay et al with a valve holder and insert as taught by Waffler as an alternative assembly configuration.

24. Claim 35 is alternatively rejected and claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jay et al (US Patent 2672881) in view of Weirich (US Patent 4313463).

25. Jay et al discloses the outflow conduit in the valve insert but fails to disclose an outflow conduit in the valve holder. Weirich (fig. 1) teaches a pressure relief valve 10 comprising a cup shaped valve holder 11 having an outflow conduit 11' at an angle relative to the longitudinal axis of the valve holder 11. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the

Art Unit: 3753

valve disclosed by Jay et al with a valve holder having outflow conduit as taught by Weirich as an alternative fluid outlet path.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Atif H. Chaudry whose telephone number is 571-270-3768. The examiner can normally be reached on Mon-Fri Alternate Friday off 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Atif H Chaudry/
Examiner, Art Unit 3753
2008

/John Rivell/
Primary Examiner, Art Unit 3753

6/12/2008